

Publication

Silent brain infarcts impact on cognitive function in atrial fibrillation.

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We aimed to investigate the association of clinically overt and silent brain lesions with cognitive function in atrial fibrillation (AF) patients.; We enrolled 1227 AF patients in a prospective, multicentre cohort study (Swiss-AF). Patients underwent standardized brain magnetic resonance imaging (MRI) at baseline and after 2 years. We quantified new small non-cortical infarcts (SNCIs) and large non-cortical or cortical infarcts (LNCCIs), white matter lesions (WML), and microbleeds (Mb). Clinically, silent infarcts were defined as new SNCI/LNCCI on follow-up MRI in patients without a clinical stroke or transient ischaemic attack (TIA) during follow-up. Cognition was assessed using validated tests. The mean age was 71 years, 26.1% were females, and 89.9% were anticoagulated. Twenty-eight patients (2.3%) experienced a stroke/TIA during 2 years of follow-up. Of the 68 (5.5%) patients with ≥ 1 SNCI/LNCCI, 60 (88.2%) were anticoagulated at baseline and 58 (85.3%) had a silent infarct. Patients with brain infarcts had a larger decline in cognition [median (interquartile range)] changes in Cognitive Construct score [-0.12 (-0.22; -0.07)] than patients without new brain infarcts [0.07 (-0.09; 0.25)]. New WML or Mb were not associated with cognitive decline.; In a contemporary cohort of AF patients, 5.5% had a new brain infarct on MRI after 2 years. The majority of these infarcts was clinically silent and occurred in anticoagulated patients. Clinically, overt and silent brain infarcts had a similar impact on cognitive decline.; ClinicalTrials.gov Identifier: NCT02105844, <https://clinicaltrials.gov/ct2/show/NCT02105844>.

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